

REMARKS

The Office Action dated July 29, 2003 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto. By this Response, Applicants have amended claims 1-6, 8-16, and 18-21 to more particularly point out and distinctly claim the present invention. Applicants have canceled claims 7 and 17 without prejudice. Claims 1-6, 8-16 and 18-21 are pending in the application. No new matter has been added. In view of the following remarks, reconsideration and allowance of claims 1-6, 8-16 and 18-21 are respectfully requested.

On page 7 of the Office Action, the Examiner has indicated that claims 20-21 would be allowable if rewritten or amended to overcome the objection set forth in the Office Action. Applicants wish to thank the Examiner for this indication of allowable subject matter. Claims 20 and 21 have been amended as suggested by the Examiner.

SPECIFICATION

Claims 6-7, 16-17, and 20-21 were objected to because these claims included the phrase "a pre-established criterion (K)." The Office Action alleged that the reference key (K) was not described in the specification or the drawings. Although the phrase "pre-established criterion" is supported in the specification, Applicants have amended the claims to remove the reference key (K) as suggested in the Office Action. Therefore, the

informality noted in the claim has been corrected. Thus, the aforementioned amendment render this objection moot.

CLAIM REJECTIONS UNDER 35 USC § 112

Claims 7 and 17 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 7 are 17 canceled without prejudice. Thus, the rejection regarding these claims is moot.

CLAIM REJECTIONS UNDER 35 USC § 101

Claims 7 and 17 were rejected under 35 U.S.C. § 101, because the claim recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process. Claims 7 are 17 canceled without prejudice. Thus, the rejection regarding these claims is moot.

CLAIM REJECTIONS UNDER 35 USC § 103

Claims 1-3, 5-6, 10, 11-13 and 15-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Einola* (WO96/37084) in view of *Ali-Vehmas* (U.S. Patent No. 6,359,867). The Office Action alleged that *Einola* discloses all of the elements of the claimed invention, with the exception of “bursts sent by a mobile station (MS) and relating to the handover signaling to the handover signaling are measured at the base transceiver station (BTS), and the measurement results are compared with a pre-established criterion, and a handover is completed only when the criterion is met.” The Office Action relied upon *Ali-Vehmas* to allegedly cure the deficiencies of *Einola*. Applicants respectfully submit that the prior art cited in the Office Action fails to teach,

suggest or disclose the features of the claimed invention. Therefore, the rejection is respectfully traversed and reconsideration is respectfully requested for the reasons which follow.

Claim 1, upon which claims 2-6 and 8-10 are dependent, recites a handover-method in a cellular radio system including base transceiver stations and mobile stations, in which cellular radio system at least two frequency bands are used. The method includes the steps of transmitting, starting, supplying, measuring, and comparing. The method transmits by each base transceiver station a broadcast intended for all mobile stations in a first frequency range. The method starts a handover to the second frequency range. The method supplies a criterion for a conditional handover to a base transceiver station. The method measures bursts sent by a mobile station and which relates to the handover signaling at the base transceiver station. The method compares the measurement results with the criterion. When the criterion is met, the handover is completed.

Claim 11, upon which claims 12-16 and 18-19 are dependent, recites a handover-method in a cellular radio system including base transceiver stations and mobile stations. The method includes the steps of starting, supplying, measuring, signaling, and comparing. The method starts a handover from an initial channel to a target channel. The method supplies a criterion for a conditional handover to a base transceiver station. The method measures bursts transmitted by the mobile station and which relates to the handover. The method signals at the base transceiver station. The method compares the

measurement results with the criterion. When the criterion is met, the handover is completed.

Applicants submit that the prior art fails to disclose or suggest the elements of the invention as set forth in claims 1-3, 5-6, 10, 11-13 and 15-16, and thereby fails to provide the critical and nonobvious advantages that are provided by the invention. To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations. There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The teaching or suggestion to make the claimed combination must be found in the prior art, and not be based on Applicants' disclosure. See M.P.E.P. §§ 2143.01 and 2143.03.

Einola discloses a multi-band mobile telephone system operating on frequency bands each of which includes a respective total number of sub-bands. Each sub-band has a different respective frequency. The multi-band mobile telephone system includes a network of base stations, and mobile stations. The mobile stations include a given mobile station communicating with the network on a sub-band within a current operational frequency band including one of the operational frequency bands. The network transmits to the given mobile station certain information regarding designated sub-bands for which the given mobile station is to perform measurements. The certain information includes a minimum number of alternate sub-bands of an alternate operational frequency band other than the current operational frequency band. The given mobile station receives from the

network the certain information and transmits to the network a measurement report comprising measurement results for a number of alternate sub-bands equal to at least the minimum number but less than the total number of alternate sub-bands.

Ali-Vehmas discloses a method for dynamic channel allocation which uses a pilot signal. The mobile obtains information from the pilot signal on the state of channels (time slots) in the uplink direction. When deciding to perform channel exchange, the mobile chooses any free channel it likes and transmits an access burst to the base station on this channel. If the base station accepts the channel, the base station will transmit back an access grant burst on the same channel. Then, the base station and the mobile will immediately transfer the traffic to the new channel.

Applicants respectfully submit that *Einola* fails to disclose several elements of the claims. As admitted in the Office Action, *Einola* does not disclose or suggest the steps of “measuring bursts sent by a mobile station and relating to the handover signaling at the base station, comparing the measurement results with the criterion and when the criterion is met, completing the handover.” *Einola*, instead, discloses a mobile communication system using two or more frequency ranges. In *Einola*, the mobile station measures the strength of the frequencies and the chosen frequencies and reports these frequencies to the network in a measurement report sent on an uplink control channel. The network sends on a dedicated control channel information on how many adjacent band frequencies the mobile station has to report on (*Einola*, col. 7, line 62-col. 8, line7).

The Office Action relies upon *Ali-Vehmas* to allegedly cure the deficiencies of *Einola*. However, *Ali-Vehmas* fails to cure the deficiencies of *Einola*. In *Ali-Vehmas* when an exchange of channels is necessary during a handover, the mobile examines its memory to find out whether any free channels are available at that moment. If no channels are available, the mobile remains on the same channel. If there are free channels, the mobile will choose a free channel and starts a channel exchange by transmitting access bursts to the base station on the free channel of its choice. The base station receives the bursts, accepts the channel by transmitting back an access grant burst on the channel, and simultaneously transfers the traffic to the new channel chosen by the mobile. The mobile transfers the traffic from the "old" channel to the new channel of its choice after receiving the access grant burst. If there is no access grant burst, the mobile will remain on the old channel.

However, *Ali-Vehmas* fails to also disclose or suggest a handover-method, which comprises supplying a criterion for a conditional handover to a base transceiver station, measuring bursts sent by a mobile station and relating to the handover signaling at the base transceiver station, comparing the measurement results with the criterion and, when the criterion is met, completing the handover. Furthermore, *Ali-Vehmas* does not disclose a cellular radio system using at least two frequency bands.

For at least those reasons, *Einola* and *Ali-Vehmas*, taken in combination or alone, do not render independent claims 1 and 11 obvious, because the references do not disclose or suggest each and every element of the claims.

In addition, claims 2-6 and 8-10 depend from claim 1 and claims 12-16 and 18-21 depend from claim 11 and are therefore allowable at least for the reasons claims 1 and 11 are allowable, respectively, and for the specific limitations recited therein.

Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Einola* (WO96/37084) in view of *Ali-Vehmas* (U.S. Patent No. 6,359,867) and in further view of *Dahlin* (U.S. Patent No. 5,200,7). The Office Action alleged that the combination of *Einola* and *Ali-Vehmas* discloses all of the elements of the claimed invention, with the exception of “the signal level of the mobile station’s burst is measured.” Applicants respectfully submit that the prior art cited in the Office Action fails to teach, suggest or disclose the features of the claimed invention. Therefore, the rejection is respectfully traversed and reconsideration is respectfully requested for the reasons which follow.

Dahlin discloses a method for communicating and conducting a handoff in a cellular mobile radio system and a base station. Time slot identifier codes are transmitted in bursts in the time slots in the frames of radio channels used for time division communication channels. The time slot identifier codes are indicative of burst time slot in a frame but not of the transmitter entity, receiver entity or radio channel. The time slot identifier codes are used for burst synchronization and for determining the signal strength of bursts which are to be measured for conducting possible handoffs.

The Office Action relies upon *Dahlin* to allegedly cure the shortcomings of *Einola* and *Ali-Vehmas*. However, *Dahlin*, like *Einola* and *Ali-Vehmas*, also fails to disclose or suggest the steps of “measuring bursts sent by a mobile station and relating to the

handover signaling at the base station, comparing the measurement results with the criterion and when the criterion is met, completing the handover.” Furthermore, claim 4 depends from claim 1 and is therefore allowable at least for the same reasons that claim 1 is allowable. Thus, *Einola*, *Ali-Vehmas* and *Dahlin*, taken in combination or alone, fail to render claims 4 obvious.

Claims 8-9 and 18-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Einola* (WO96/37084) in view of *Ali-Vehmas* (U.S. Patent No. 6,359,867) and in further view of *Dufour* (U.S. Patent No. 5,878,349). The Office Action alleged that the combination of *Einola* and *Ali-Vehmas* discloses all of the elements of the claimed invention, with the exception of “assigned for the connection the bursts of connection request set-up and signaling received from the mobile station are measured at the base transceiver station.” Applicants respectfully submit that the prior art cited in the Office Action fails to teach, suggest or disclose the features of the claimed invention. Therefore, the rejection is respectfully traversed and reconsideration is respectfully requested for the reasons which follow.

Dufour discloses a cellular network having a first cluster of base stations serving a first group of mobile stations over digital RF channels and a second cluster of base stations, collocated with the first cluster, for serving a second group of mobile stations over analog RF channels. Some of the base stations in the second cluster have cells which overlap with some of the cells of the first cluster. *Dufour* further discloses a method for setting up a call on an analog voice channel of a base station of the second

cluster while a mobile station is being served on a digital control channel of a base station in the first cluster.

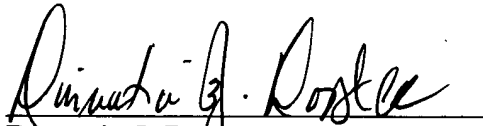
Although the Office Action relies upon *Dufour* to cure the deficiencies of *Einola* and *Ali-Vehmas*, *Dufour* fails to disclose or suggest the features which are missing from *Einola* and *Ali-Vehmas*. Applicants respectfully submit that *Einola*, *Ali-Vehmas*, and *Dufour* do not render claims 8-9 and 18-19 obvious because the references, taken alone or in combination, fail to teach or suggest the steps of “measuring bursts sent by a mobile station and relating to the handover signaling at the base station, comparing the measurement results with the criterion and when the criterion is met, completing the handover” since claim 8-9 depends from claim 1 and claims 18-19 depend from claim 11 and are therefore allowable for the same reasons that claims 1 and 11 are allowable, respectively. Thus, Applicants respectfully request the withdrawal of this rejection.

Thus, Applicant submits that certain clear and important distinctions exist between the cited prior art and the claimed invention. Applicant submits that these distinctions are more than sufficient to render the claims of the invention unanticipated by and unobvious in view of the prior art. It is therefore requested that claims 1-6, 8-16 and 18-21 be found allowable, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants’ undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Dinnatia J. Doster", written over a horizontal line.

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